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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/600,018	06/20/2003	Jeong Hyun Kim	U 014684-8	8451

7590 09/15/2005

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EXAMINER

SOLAK, TIMOTHY P

ART UNIT	PAPER NUMBER
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3746

DATE MAILED: 09/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/600,018	Applicant(s) KIM, JEONG HYUN	
	Examiner Timothy P. Solak	Art Unit 3746	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 June 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 is/are rejected.
- 7) ☒ Claim(s) 4-6 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 June 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>06/20/2003</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Specification

The abstract of the disclosure is objected to because it exceeds 150 words in length.

Correction is required. See MPEP § 608.01(b).

The disclosure is objected to because of the following informalities:

- ♦ The incorporation of essential material in the specification by reference to an unpublished U.S. application, foreign application or patent, such as on page 1, lines 4-5, or to a publication is improper. Applicant is required to amend the disclosure to include the material incorporated by reference, if the material is relied upon to overcome any objection, rejection, or other requirement imposed by the Office. The amendment must be accompanied by a statement executed by the applicant, or a practitioner representing the applicant, stating that the material being inserted is the material previously incorporated by reference and that the amendment contains no new matter. 37 CFR 1.57(f).

Alternatively, applicant can delete "the disclosure of which is incorporated herein by reference", from page 1, lines 5-6, to overcome this objection.

- ♦ Recitation of "block 1" on page 6, line 13, would be clearer if rewritten as --block 21--.

Appropriate correction is required.

The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The following title is suggested: --Valve Plate with Integral Exhaust Chamber--.

Claim Objections

Claims 1-6 are objected to because of the following informalities:

* Recitation of "and exhaust the compressed gas" in Claim 1, line 9, is not clear in context. The "exhaust chamber part" is incapable of performing the steps/functions ascribed thereto, namely "exhaust[ing]". A chamber can only store/hold things, it cannot actively move things. In other words, a bucket can only hold water; somebody is needed to carry the water in the bucket. Applicants may wish to consider terminology such as --in communication with an exhaust port-- to describe the chamber.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Collings et al.

(6,176,688). Collings et al. teach a hermetic compressor, comprising: a casing 22, a cylinder block 40, a cylinder bore 52, a piston 50, a cylinder head 61 mounted to an end of the cylinder

block (see Figure 1) and an exhaust chamber part 66 provided at the cylinder head in fluid communication with the outside of the casing 130.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Collings et al. (previously mentioned). Collings et al. teach a hermetic compressor, comprising: a casing 22, a cylinder block 40, a cylinder bore 52, a piston 50, a cylinder head 61 mounted to an end of the cylinder block (see Figure 1) and an exhaust chamber part 70 provided at the cylinder head in fluid communication with the outside of the casing 130. Collings et al. further teach a chamber body (not labeled but clearly seen in Figure 5), *formed at a side of the cylinder head* (looking at Figure 3A, exhaust chamber part 70 is located on the bottom side (i.e. below piston 50) of head 61; in fact exhaust chamber parts 70/102 are located on both sides of the head 61). Collings et al. further discloses the chamber body is open at a top (see Figure 5A-B) thereof to define an exhaust chamber 72 therein and a chamber cover 74. Collings et al. further teaches the chamber body and the chamber cover are provide with at least one bolt hole 78, at least one through hole 82 and a bolt holding the cover to the body. Although Collings et al. teach most of the limitations of the claims, including a chamber body formed at a side of the cylinder head; they do not disclose the body to be integral to the head. The unity or diversity of parts depends on the

choice of manufacturer and the convenience and availability of the machines and tools necessary to construct the pump. Therefore, it would have been obvious to one of ordinary skill in the art of pump fabrication at the time the invention was made, to have formed the body integral to the head in the pump disclosed by Collings et al., to have advantageously facilitated manufacturing of the pump.

Allowable Subject Matter

Claims 4-6 would be allowable if rewritten to overcome the objections, set forth in this Office Action and to include all of the limitations of the base claim and any intervening claims.

Reasons for the Indication of Allowable Subject Matter

The following is a statement of reasons for the indication of allowable subject matter: the prior art of record, does not teach or make obvious the apparatus of Claim 4, namely a hermetic compressor comprising: a cylinder block having a cylinder bore, a piston placed in the cylinder bore and an exhaust chamber part; wherein said exhaust chamber part comprises a chamber body and a chamber cover, but more specifically, the chamber body comprises two bore cylindrical parts which are arranged in parallel to each other and integrally coupled to each other and the chamber cover comprises two dome-shaped parts which are arranged in parallel to each other and integrally coupled to each other so as to correspond to a shape of the chamber.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Kim et al. (6,176,687) teach a valve head having an exhaust chamber part (103a-b).
- Da Costa (4,979,879) teaches a hermetic compressor having a valve head with two exhaust chamber ports and a cover (see Figure 3).
- Hirano et al. (5,328,338) teach a hermetic compressor having a recessed chamber (523) on a valve plate.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Timothy P. Solak whose telephone number is 571 272-4833. The examiner can normally be reached on Monday through Friday from 10:30 am to 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy S. Thorpe can be reached on 571 272-4444. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Timothy P. Solak
Examiner
Art Unit 3746
September 10, 2005